

Jahid Hasan

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📍 Lafayette, Indiana

RESEARCH INTEREST

Trustworthy Machine Learning, Data Quality, Data Preparation, DBMS, Statistical Method, Pipeline Robustness, Human-in-the-loop.

EDUCATION

Doctor of Philosophy (Ph.D.) — Computer and Information Technology

Purdue University, West Lafayette

Supervisor: [Dr. Romila Pradhan](#)

AUG 2023 - MAY 2027

GPA: 4.00

Master of Science (M.S.) — Mathematics

University of Dhaka, Dhaka, Bangladesh

Dissertation Title: *Age Distributed model of Communicable Disease in Heterogeneous Environment*

Supervisor: [Dr. Md. Shahidul Islam](#)

JAN 2022 - JUL 2023

GPA: 3.81

Bachelor Science (B.S.) — Mathematics

University of Dhaka, Dhaka, Bangladesh

JAN 2017 - DEC 2021

GPA: 3.69

SKILLS

Programming Languages/Frameworks: **Python, SQL, R, MATLAB, Fortran, SAS, SPSS**

Machine Learning Tools/Libraries: **PyTorch, Numpy, Pandas, Tensorflow, Matplotlib, SciKit-Learn**

WORK EXPERIENCE

Purdue University, West Lafayette, IN — Graduate Research Assistant

AUG 2023 - PRESENT

- Developed a Reinforcement Learning-based data expansion framework for ML training, superior to the baselines, to ensure fairness and accuracy in ML model. Implemented the Influence function in the data pool to assess data value and address uncertainty in utilities.
- Find the **Submitted** work — Jahid Hasan and Romila Pradhan. 2024. *Data Acquisition for Improving Model Fairness using Reinforcement Learning*. *arXiv:2412.03009 [cs.LG]*. <https://arxiv.org/abs/2412.03009>
- Developing a framework to assess the ML pipeline robustness and generate explanations for the end-user.
- Appointed for **NSF** and **CASMI**-granted project of *Data Preparation for Fair and Trustworthy Machine Learning*.

University of Dhaka, Bangladesh — Graduate Research Assistant

JAN 2022 - JULY 2023

- Derived dynamical behavior and comprehensive data analysis for 'Age Distributed model of Communicable Disease in Heterogeneous Environment' project granted by University Grant Commission (UGC).
- The work contributed to identifying the spreading nature of Hepatitis B disease and how different age categories contributed to the onset of the disease.

RELEVANT PROJECT

Purdue University — Machine Learning Bias Mitigation Through Data Transformation

- Implemented a data-transformation method on the raw dataset to ensure equal opportunity in prediction. Demonstrated effective results on the output.

Purdue University — Heart Attack Prediction: Risk Detection of Cardiovascular Diseases

- Developed the entire machine learning pipeline from scratch for the Kaggle Heart Attack dataset, including exploratory data analysis, preprocessing, model selection, and evaluation.

INVOLVEMENT

- CIT Alternate Senator**, Purdue University. Acted as a bridge between my department and the Graduate Government on behalf of graduate students, facilitating communication and representing departmental concerns. (2024 – 2025)
- Event Director**, Polytechnic Graduate Student Organization. Responsible for planning, coordinating, and executing events, including budget management, logistics, and stakeholder engagement. (2024 – 2025)
- Fundraising Chair**, Bangladesh Student Association at Purdue. Responsible for developing and implementing strategies to raise funds, organize events, and build relationships with donors to support the organization's mission. (2024 – 2025)

AWARDS & PROFESSIONAL ACTIVITIES

- Travel grant** for the workshop on **Digital Safety**, The Center for Advancing Safety of Machine Intelligence, UL Research Institute.(May, 2024).
- National Science and Technology Fellowship (NST)**, Bangladesh, 2022.
A fellowship by the Science and Technology Ministry of the Government of the People's Republic of Bangladesh for academic excellence.
- Merit Scholarship**, University of Dhaka, Bangladesh, 2022. A scholarship for 95th percentile academic results.
- PC Member/Reviewer** in Elsevier 2023 & 2024, [ORCiD](#)
- Invited Talk**, Exploring Global Horizon of Research, 2023, Organized by the Mahatma Gandhi University, Kerala, India.
- Participant**, International Research outreach Program(IROP), 2022, An international research program organized by Dong Thap University, Vietnam.

REFERENCES

Dr. Romila Pradhan, Assistant Professor of Computer and Information Technology, Purdue University, Email: rpradhan@purdue.edu

Dr. Md. Shahidul Islam, Professor and Chairman of Mathematics, University of Dhaka, Email: mshahid@du.ac.bd